

Aerospace Human Factors Association Awards

Henry L. Taylor Founders Award Glenn Wilson

Dr. Glenn Wilson, the 2006 winner of the Henry L. Taylor Founder's Award for outstanding contributions in the field of aerospace human factors, was the speaker at the Aerospace Human Factor Association's Luncheon and Business Meeting in New Orleans. Dr. Wilson's presentation, entitled "Operator Functional State (OFS) Assessment and Application," reviewed the highlights of the results of research involving psychophysiological determinants of OFS. He then speculated on what the future held for OFS.

Recently retired, Glenn Wilson was employed as a Principal Research Psychologist at the Air Force Research Laboratory's Human Effectiveness Directorate at Wright Patterson AFB, OH. The primary focus of his work was to find psychophysiological correlates of operator performance in complex Air Force environments. This included recording multiple physiological measures during flight in several operational test and evaluation programs as well as a "flying laboratory" using aeroclub aircraft. Laboratory and simulator tasks were also used to develop measures of operator functional state. One of the goals that was recently realized was to close the loop by including the momentary functional state of the operator in decisions to provide adaptive aiding. Brain, eye, and cardiac activity were used to determine if the operators of a UAV simulation were cognitively overloaded and about to make errors. Significant improvements in performance were found when adaptive aiding was applied only when it was needed as determined by changes in the operator's physiology. He also recorded what may be the first brain-evoked potentials during aircraft flight, a task he promises never to repeat. He is a charter member and Fellow of AshFA.

William E. Collins Award Mark Rosekind

The Aerospace Human Factors Association presented the William E. Collins Award for "Outstanding Human Factors Publication of the Year" to Mark R. Rosekind,



TAYLOR AWARD--AshFA President Raymond King (left) presents Glenn Wilson (right) with the 2006 Henry L. Taylor Founders Award.

Ph.D., President and Chief Scientist for Alertness Solutions. Dr. Rosekind and his co-authors K. Gregory and M. Mallis published their article on "Alertness Management in Aviation Operations: Enhancing Performance and Sleep" in *Aviation Space and Environmental Medicine* (Vol. 77, No. 12, 1256-65).

Dr. Rosekind began his scientific career while an undergraduate at Stanford University conducting research at the Stanford Sleep Disorders and Research Center. He graduated from Stanford with Honors, and then obtained his Ph.D. in clinical psychology and psychophysiology at Yale University. Dr. Rosekind completed his formal academic training with a post-doctoral fellowship in sleep and chronobiology at Brown University's Sleep Laboratory.



Dr. Rosekind's expertise has been used by many government agencies to address safety and alertness-related policies. He has contributed directly to policy activities involving the Federal Aviation Administration, Federal Rail Administration, Federal Motor Carrier Safety Administration, Nuclear Energy Commission, NASA, and numerous corporations, and has provided Congressional testimony. Over the years, Dr. Rosekind has worked extensively with the National Transportation Safety Board (NTSB), including as Co-Chair of the first symposium on fatigue in transportation organized by the NTSB and NASA. Dr. Rosekind led efforts to develop a structured approach to examining fatigue factors in accident investigations for use by NTSB investigators and teaches a course on this topic at the NTSB Academy. He is a member of the Board of Directors of the National Sleep Foundation and the Executive Council of the Harvard Medical School's Division of Sleep Medicine.

Stanley N. Roscoe Award Alison Tollner Burngasser

The Aerospace Human Factors Association presented the Stanley N. Roscoe Award for the best doctoral dissertation written in a research area related to Aerospace Human Factors to Dr. Alison Tollner Burngasser, Ph.D. Dr. Burngasser's dissertation, "Individual and Team Susceptibility to Change Blindness," investigated the phenomenon of change blindness in teams of operators monitoring displays in a simulated air battle management environment. The dissertation was sponsored by the Air Force



Research Laboratory (AFRL), Human Effectiveness Directorate, Warfighter Interface Division, Collaborative Interfaces Branch (HECP's) Collaborative Tools for Tactical Command and Control research pro-

gram and is part of an ongoing collaboration between the University of Cincinnati's Department of Psychology and AFRL's Human Effectiveness Directorate. Dr. Burngasser received her B.A. in Psychology from Buffalo State College and both her M.A. and Ph.D. in Experimental Psychology with a concentration in human factors from the University of Cincinnati. Dr. Burngasser is currently employed as a Sensory Scientist, studying tactile and scent perception of beauty care products, at the Procter & Gamble Company Beauty Care Research Center, in Cincinnati, OH.

MEETINGS CALENDAR 2007

August 6-9, 2007, Capitol Hilton, Washington, DC. ALPA's 53rd Annual Safety and Security Week and the Air Safety and Security Forum. For more information or to register: for the Safety and Security Week, please visit <https://crewroom.alpa.org/safety/Default.aspx?tabid=2427>; and for the Aviation Forum, please visit <https://crewroom.alpa.org/security/Default.aspx?tabid=1607>.

October 29-31, 2007, Grand Sierra Resort & Casino Hotel, Reno, NV. SAFE Association 45th Annual Symposium. For more info, call (541) 895-3012, Fax (541) 895-3014, e-mail safe@peak.org, or visit www.safeassociation.com or www.safeassociation.org.

October 10-13, 2007, Marriott San Diego Mission Valley, San Diego, CA. Civil Aviation Medical Association Annual Scientific Meeting. This meeting is certified as an AME seminar by the FAA. For more information, please contact Jim Harris at jimlharris@aol.com or call 405-840-0199.

October 11-12, 2007, NTSB Training Center, Ashburn, VA. Accident Investigation Orientation for Aviation Professionals. For more information, please visit http://www.ntsb.gov/Academy/CourseInfo/AS301_2007.htm.

October 15-19, 2007, NTSB Training Center, Ashburn, VA. Survival Factors in Aviation Accidents. For more information, please visit http://www.ntsb.gov/Academy/CourseInfo/AS302_2007.htm.

November 1-2, 2007, Holiday Inn Regents Park, London, UK. Second Annual Aviation Health Conference. For more information, visit www.quaynote.com. For sponsorship or speaking opportunities, contact lorna@quaynote.com or phone 44-20-8531-6464.

January 30--February 1, 2008, Hyatt Regency, Long Beach, CA. Medicine Meets Virtual Reality 16 (MMVR16) Call for Papers. For more information, please visit www.nextmed.com/mmvr_virtual_reality.html or e-mail MMVR16@NextMed.com.

Postponed until 2008. Human Performance, Situation Awareness, and Automation (HPSAA III) Technology Conference. Info: Mustapha Mouloua, Conference Chair, 407-823-2910, mouloua@pegasus.cc.ucf.edu, <http://faculty.erau.edu/hpsaa/>.

LSBEB Award Winners for 2007

The A. Howard Hasbrook Award Francis "Ted" Knox

Francis S. "Ted" Knox is the 2007 recipient of the LSBEB A. Howard Hasbrook Award. He is a recognized authority on research and development related to the protection of individuals from operational and emergency hazards associated with transient acceleration, thermal, and windblast stresses. He received his Ph.D. in Physiology and Biomedical Engineering in 1971 from the University of Illinois at the Medical Center in Chicago. He then began his career as a Captain, MSC, U.S. Army, in 1970, serving as Chief of Bioinstrumentation at the Aeromedical Research Laboratory, Fort Rucker, AL, where his primary research focused on thermal protective clothing, biophysics of burns and post-crash fires.

In 1973, after he left the service, he became a member of the faculty at LSU Medical Center School of Medicine in Shreveport, LA. In 1980 Ted returned to USAARL as a civilian and became a Supervisory Research Physiologist and Branch Chief in 1985. There he managed a research group studying the effects of environmental stressors on pilot physiological and cognitive performance. He was also responsible for providing technical information and advice to the Laboratory Commander, Deputy Surgeon General for R and D, Assistant Secretary of the Army for R and D, and other government executives.

In 1989 Ted transferred to the USAF and is currently Principal Scientist, Biomechanics Branch, Biosciences and Protection Division, Human Effectiveness Directorate, Air Force Research Lab. He serves as a national authority in hazardous processes and mechanisms associated with aerospace crew environments and protective approaches and measures. His research and exploratory development efforts directly support and are critical to major Air Force weapon system programs. The work is aimed at reaching a fundamental understanding of the processes and mechanisms by which human injury occurs in response to transient acceleration, windblast, and thermal stresses. His multidisciplinary team of scientists, engineers, and technicians take a systematic approach to defining human exposure limits and developing protective countermeasures for vehicle crash and escape system environments, including ejection acceleration,

aerodynamic deceleration, windblast, thermal pulse, parachute opening shock, and landing impact. His research frequently requires the development and application of unique experimental techniques and often yields significant contributions to the advancement of new theories to guide future hardware design concepts for crew protection and emergency escape systems.

Among his most recent contributions is the development of methods to measure head acceleration and motion in high impact crashes. Ted manages and coordinates a cooperative research agreement between the Air Force Research Laboratory and the automotive racing industry to determine the relationship between head and helmet accelerations, displacements, and the resulting head injury. The focus of this research uses instrumented helmet and earplugs to measure head accelerations during actual racing mishaps. To accomplish this, Ted oversaw the development and implementation of miniature tri-axial accelerometer packages for mounting in both helmet liners and inside earplugs. Ultimately, these data can be used to calculate neck loads during impact and correlate them to the actual injuries sustained by racecar drivers. This information will then be used to create Real Impact Injury Criteria, which are pertinent to both military and commercial aircraft pilots.

Professional Excellence Award Bob Cheung

Dr. Bob Cheung is the 2007 recipient of the LSBEB Professional Excellence Award. He is a senior level defense scientist at Defence Research and Development Canada in Toronto, a science and technology agency for the Department of National Defence, Canada. Currently he is the Group Leader of the Performance Group with the Individual Readiness Section of DRDC-Toronto. He holds Honorary B.Sc. degrees in physiology and mathematics and a B. Ed. from the University of Toronto. Dr. Cheung obtained his graduate degrees in neurophysiology, specifically, visual and vestibular physiology and psychophysics from the Department of Biology, Faculty of Graduate Studies, York University/University of Toronto. He is recognized as the subject matter expert in motion disturbance and spatial disorientation for the Canadian Forces and

he is a member of two NATO RTO HFM Task Groups on spatial orientation and tactile cueing technology for military operations.

The objectives of his research are to understand and investigate the impact of spatial disorientation and motion disturbance on physiological, psychophysical, and cognitive responses in tri-service operational environments and to explore and develop protective countermeasures to maintain operational effectiveness. He is also the project leader for a number of major programs, including Diagnostic Assessment of Blast-Induced Mild Traumatic Brain Injury and Tactile Display for Search and Rescue Operations. Since 1998, Dr. Cheung has served as an Adjunct Professor at the Department of Physiology, Faculty of Medicine, University of Toronto, and a frequent lecturer for NATO short courses, and a regular lecturer for the Canadian Forces Flight Surgeons course. He was supervisor and co-supervisor of over 20 graduate students and medical students at DRDC-Toronto, the Institute of Biomedical Engineering, Department of Physiology and Otolaryngology, Department of Health Sciences and Physical Education at the University of Toronto, York University, University of Regina, University of Western Ontario, and Memorial University.

Dr. Cheung is a Fellow of the Aerospace Medical Association and an elected member of the Barany Society of Vestibular Research. He received the Sidney D Leverett, Jr., Environmental Science Award for his significant contribution to environmental medicine through a publication in *Aviation, Space, and Environmental Medicine*. Dr. Cheung is the principal author and co-author of 82 scientific papers, conference proceedings, technical reports, and book chapters on motion sickness and spatial disorientation.

Research and Development Innovation Award Leonid Hrebien

Dr. Leonid Hrebien is the recipient of the 2007 LSBEB Research Development and Innovation Award. His outstanding achievements as a Biomedical Engineer, Scientist, Professor of Electrical Engineering at Philadelphia's Drexel University, Mentor, Consultant, and Manager have played a sig-



HASBROOK AWARD--LSBEB President Bill Fraser (right) presents the A. Howard Hasbrook Award to John Plaga, who accepted it for Ted Knox, the winner.



PROFESSIONAL EXCELLENCE--LSBEB President Bill Fraser (right) presents the LSBEB Professional Excellence Award to Dr. Bob Cheung.



R&D INNOVATION--LSBEB President Bill Fraser (right) presents the Research and Development Innovation Award to Leonid Hrebien.

nificant role in the world of aerospace medicine. Dr. Hrebien's unrelenting dedication to aviation medicine and his continuous improvement of the field has led to the design, development, testing, and delivery of software and methods to enhance the mission of U.S. military helicopter and tactical aircrew. He developed non-invasive, unobtrusive, objective, and quantitative measurement techniques to evaluate physiological parameters during exposure to stressful work environments. This work combined theoretical analysis and human testing to establish multi-parameter physiologic criteria for evaluating the functional consciousness of high performance aircraft pilots.

Dr. Hrebien's deep understanding of acceleration physiology and his pioneering work on the mitigation of acceleration effects on cardiovascular and cerebrovascular functions have provided critical insight in furthering aircrew systems technology and processes. Specifically, he determined that the pulse wave delay between the heart and brain increases linearly with +Gz and that G-tolerance limits as measured using conventional light bars correlate highly with the change in pulse wave delay, termed the delta delay. When protective modalities such as anti-G suits or supinating seats are used, the delta delay increases at a slower rate as a function of +Gz. This parameter has been used to warn expert systems of the approach of G-LOC and affords an objective measure of G-protection equipment.

Dr. Hrebien is at the forefront of cutting-edge research on bioinformatics. His tenacity in pushing this frontier will lead to advances in gene expression, proteomics, and biofluid magnetic resonance spectrometry. The goal of his work is to model large-scale data sets and

to develop efficient and robust analysis and screening techniques to assess efficacy and toxicity of new drug compounds.

Dr. Hrebien is an AsMA Fellow and has over 100 publications including 15 presentations as an invited speaker. His accomplishments as a scientist and as a teacher have been acknowledged by several awards including the Drexel University Joseph S. Mozino Blue and Gold Award and the LSBEB Professional Excellence Award.

Ross McFarland Student Award Carlos Cardillo

Carlos G. Cardillo is the 2007 recipient of the LSBEB Ross McFarland Student Award for his paper titled "Quantitative Electroencephalographic Changes Under Continuous Wakefulness and with Fatigue Countermeasures: Implications for Sustaining Aviator Performance." In this work, Mr. Cardillo and colleagues used quantitative electroencephalography (QEEG) as an indicator of sleep-deprived brain changes and how pharmacologic interventions temporarily restore brain state to near normal function. In sleep deprivation studies, alpha wave attenuation combined with an increase in slow activities are the first QEEG signs of sleepiness. In their study, QEEGs were recorded at different time points on 28 pilots during 87 hours of extended wakefulness. Six subjects were on caffeine, eight on dextroamphetamine, eight on modafinil, and six on placebo. Responses were measured in the frontal, central, and occipital regions. Their results indicated that modafinil showed less significant increase of slow fre-

quencies over all areas of the brain up until 42 hours of sleep deprivation. Although alpha activity tend to decrease as the hours awake increased, the modafinil group showed virtually no changes from baseline until 46 hours of sleep deprivation, suggesting a delay in the deterioration or decrease of alpha activity. Furthermore, it was clear that sleep-deprived subjects had different QEEG spectra than those not sleep-deprived and that QEEG spectra of sleep-deprived subjects are converse to the spectra induced by psychostimulants in well-rested volunteers. Therefore, information obtained by measuring QEEG changes could be used to assess alertness level and drug effectiveness in fatigue countermeasure interdiction paradigms in the operational community.



MCFARLAND STUDENT AWARD--LSBEB President Bill Fraser (right) presents the Ross McFarland Student Award to Carlos Cardillo.

U.S. Army Aviation Medical Association Luncheon and Awards

The Joseph Haley Writing Award, given annually, is given for the best aeromedical publications relevant to rotary wing medicine. The article in *Human Factors*, Summer 2006, entitled "A Tactile Cockpit Instrument Supports the Control of Self-Motion During Spatial Disorientation," was the article selected for 2006. The author, Jan B. F. van Erp, Chief Scientist, Department Human Interfaces, TNO Human Factors, The



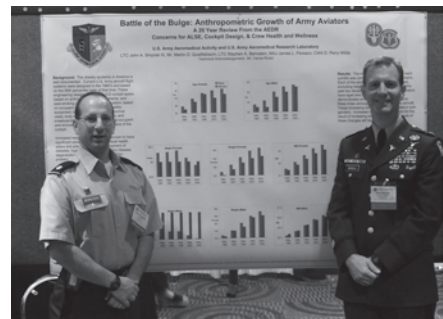
LUNCHEON SPEAKER--COL Boneta gives a presentation at the USAAMA luncheon on the future of Army RAMs and Army aviation medicine.

Netherlands, was unable to attend and receive the award. However, representing him and the co-authors, was their colleague Dr. Willem Bles, who was present at the U.S. Army Aviation Medical Association Luncheon to receive the award.

In attendance at the luncheon were numerous Army RAM-s, past and current association officers, and the acting Aeromedical Consultant to the Surgeon General, COL Otto Boneta. COL Boneta gave an in-depth review of the way ahead for Army RAMs and the future of Army Aviation Medicine.



HALEY AWARD--COL John Campbell, president of the USAAMA, presents the Joseph Haley Writing Award to Dr. Willem Bles, who was representing the winner, Jan B. F. van Erp, at the USAAMA luncheon.



BEST ARMY POSTER--Pictured are LTC Stephen A. Bernstein and LTC John A. Smyrski, presenting their poster on "Battle of the Bulge: Anthropometric Growth of Army Aviators."

Reminder for Prospective Associate Fellows

The Chair of the Associate Fellows Group reminds prospective Associate Fellows that their applications must be received by August 1 each year in order to be considered for the annual selection.

Update forms are available from the Home Office.

Society of U.S. Air Force Flight Surgeons Awards

George E. Shafer Award Thomas W. Travis

Major General Thomas W. Travis, USAF, MC, one of the world's premier aerospace medicine physician leaders, is the 2007 winner of the George E. Shafer award. (At the time the award was presented, he was a Brigadier General. He was promoted to Major General in June.) He has distinguished himself as a pilot, human factors expert, and physician leader in both aerospace and clinical leadership roles in the U.S. and international communities. His direct influence on the art and science of aerospace medicine are evidenced in the skills and training of thousands of aerospace medicine physicians, and in the institutional and technological breakthroughs that better support the human in weapons systems.

Already an accomplished fighter pilot and aircraft commander, then Capt. Travis entered USUHS School of Medicine and graduated with an M.D. as the Air Force's top graduate. He immediately applied his skills to become a squadron flight surgeon and one of the Air Force's premier fighter weapons system pilot-physicians. He went on to complete the USAF Residency in Aerospace Medicine, one of very few pilot-physicians to do so.

Combining his talents in aerospace medicine, human factors, physiology, and as a fighter pilot, he led the Human Systems Program Office Medical Operations. There he was instrumental in the development of next generation performance enhancing protective equipment, for which he received two patents, and participated as a pilot member of the cockpit design team for the F-22. He was handpicked to take his experience and skill set to England as the Senior Medical Officer/Pilot for the Royal Air Force. His efforts in support of the Eurofighter solidified a crucial partnership and established him as an international aerospace and human factors leader. Additionally, as test-pilot for technology of his own design, he distinguished himself as one of a few able to articulate all aspects of aerospace medicine and human factors engineering from inside out.

Maj. Gen. Travis went on to become the U.S. Air Force's lead flight surgeon as the AF Surgeon General's Director of Operational Health and Chief of Aerospace Medicine. There he led thousands of aerospace medicine professionals in nine separate disciplines



SHAHER AWARD--Air Force Surgeon General Lt. Gen. James Roudebush presents the George E. Shafer Award to Thomas Travis. Col Richard Bachmann, SUSAFFS President looks on.

around the world, and established operational policies, procedures, and research priorities that remain as foundations of our specialty today. He went on to command the USAF School of Aerospace Medicine, where he reinvigorated international aerospace medicine training and advanced the content and methods of training the core skills of thousands of today's aerospace medicine experts. His life-long passion for the human in the weapon system and his track record of extraordinary accomplishments led to his selection as commander of the 311th Human Systems Wing, the world's premier operational medicine organization. As top commander at Brooks, he translated his passion for aerospace medicine into the Air Force vision for support of human performance sustainment and enhancement, and human systems integration.

As a healthcare executive, Maj. Gen. Travis now commands one of the Air Force's largest hospitals, serving nearly 400,000 beneficiaries, and is one of the service's most influential senior medical officers and one of the most visible members of our Aerospace Medicine community. He has served as president of the Society of USAF Flight Surgeons, president of the International Association of Military Flight Surgeon Pilots, and is a Fellow of both the Aerospace Medicine Association (AsMA) and the American College of Preventive Medicine. He was also recently honored with the 2007 Marie Marvingt Award from AsMA.

Malcolm C. Grow Flight Surgeon of the Year Ryan Freeland

Captain Ryan Freeland, USAF, MC, is the 2007 recipient of the Malcolm C. Grow Flight Surgeon of the Year award. Capt. Freeland's contributions have been exemplary, reflecting the highest standards of officership, airmanship, and medical professionalism. Capt. Freeland amassed 170 days of deployment in support of Operations Iraqi (OIF) and Enduring Freedom (OEF). In garrison, he is one of our premier peacetime flight surgeons. He has delivered compassionate healthcare, taught wing-wide self-aid buddy care, tactical combat casualty care, and as a leading member of our Plans Element, deconflicted a high ops tempo training/deployment schedule for 58 medics spanning 5,435 deployed man-days and 5 GCCs. His clinical skills and patient rapport got him named the 1 SOMDG's



GROW AWARD--Lt. Gen. Roudebush presents the Malcolm C. Grow Flight Surgeon of the Year Award to Ryan Freeland. Col Richard Bachmann, SUSAFFS Presidents, looks on.

Outstanding Junior Provider of the Year for 2006. He possesses both the art of doctoring and the aviator's edge to build credibility among our operators as an exceptional flight surgeon.

Born in Kalamazoo, MI, Capt. Freeland earned a B.S. from Wheaton College in Wheaton, IL, in 2000 and an M.D. from Loyola University Chicago Stritch School of Medicine in Maywood, IL, in 2004. He then served an internship at Grand Rapids Medical Education and Research Center, Michigan State University, in Grand Rapids, MI, during 2004-2005. He entered active duty in July 2005 and completed the Aerospace Medicine Primary Course in September 2005. He was then assigned to Hurlburt Field, FL, where he still serves.

Ryan was lead flight surgeon for a compartmentalized OEF maritime Special Operations Forces (SOF) direct action/special reconnaissance mission unprecedented in the history of U.S. SOF operations. Serving in the most austere of environments, he directed the care of 50 Naval SOF personnel, supervising three Navy Special Warfare hospital corpsmen and \$660K of medical supplies, and he fashioned new techniques for shipboard CASEVAC operations, conducting 108 day/night rotary wing litter hoists in the severe sea conditions. Awarded the Navy & Marine Corps Achievement Medal and the U.S. Navy's coveted "Order of the Shellback" award, his ground-breaking work has become the U.S. Navy's template for "sea-basing" of joint special operations.

Capt. Freeland served in 21 combat missions and 72 combat hours at the sharpest end of the special operations spear. Serving as the operational flight surgeon for the Combined Joint Special Operations Air Component (CJ-SOAC), Doc Freeland directed primary care and aeromedical dispositions for 500+ Air Commandos. He supervised two SOF Independent Duty Medical Technicians, one Navy hospital corpsmen, and managed a medical wartime inventory of \$312K. He flew 16 direct action missions with U.S. & coalition special forces into insurgent-held areas. Flying low-altitude profiles in blacked-out conditions, he was responsible for bringing over 800 joint and coalition SOF warriors to the fight and providing the medical "safety net" for ground assaulters. He also served as the senior flight surgeon for the USCENCOM Crisis Response Element, the theater commander's special operations option for any new regional contin-



SAFETY AWARD--Col. Paul Young (center) accepts the Operational Flight Surgeon Safety Award for Raymond Clydesdale, who was unable to attend, from Lt. Gen. Roudebush, as Richard Bachmann, President of the SUSAFFS, looks on.

gency. In addition, he served as the human factors expert during a Safety Investigation Board for a Navy HH-60H Class B mishap. For his actions in Iraq, he was awarded the USAF Air Medal.

Capt. Freeland's other awards include the Iraqi Campaign Ribbon, the GWOT Expeditionary Medal, the AF Outstanding Unit Award, the National Defense Service Medal, GWOT Service Medal, the AF Training Ribbon, and the ISOSS Company Grade Officer of the Quarter, July-September 2006.

Operational Flight Surgeon Safety Award

Raymond J. Clydesdale

Captain Ray "Doogie" Clydesdale, USAF, MC, has earned the moniker "Safety Man" for his overall contribution to a culture of safety at Aviano. He has been assigned to Aviano AB, Italy since June 2005, first with the 31st Aerospace Medicine Squadron and then with the 510th Fighter Squadron. Doogie's dedication to flight and ground safety is unmatched, and over the year he has contributed to safety at every opportunity.

At Aviano AB, Italy, after a new B-course lieutenant in another squadron G-LOC'd, he sought opinions and ideas from across the Combat Air Force and incorporated them into a comprehensive rewrite of the 31 OG G-LOC prevention program. This plan included a HUD tape review required and better training for pilots to recognize and correct G-strain

deficiencies during debrief. He subsequently worked with the flight physiologist at Aviano to provide a flight profile to assist pilots who had been out of the high-G environment for extended periods of time.

Doogie also managed the interim safety flight surgeon role for the Army for a Blackhawk destroyed during a tornado on base. His rapport with the commander was vital to the preservation of key-evidence and data collection.

While deployed to Israel, Capt Clydesdale developed a protocol for decompression sickness after local on-site hyperbaric chamber visits. Since the host country's aerospace medicine assets lacked pressurized oxygen-delivery equipment, Doogie devised a provisional plan to utilize the E-3 Sentry's pressurized oxygen capability until the patient could be transported to the appropriate facility. This new process provided a safety net for all American aviators.

Doogie's most lasting contributions to flight safety may be a result of his adept Human Factors observations when picked as the FS on the Safety Investigation Board investigating an F-16 Class A mishap at Spangdahlem AB, Germany. Capt Clydesdale clearly demonstrated mathematically and visually multiple visual illusions that contributed to the mishap when he led an HH-60 photo shoot over the Spangdahlem airfield. His careful dissection of the facts during testimony to the convening authority explained the complex interaction of human factors. His in-depth knowledge of current counter-fatigue management also led to a clarification of the

current no-go pill policy.

Lastly, much of the year at Aviano dealt with alcohol's persistent influence in the flying and military community. Several aviators were grounded and appropriately returned to flying through the persistent advocacy of Capt Clydesdale. Doogie's presence in his squadron, coupled with his myriad briefs on the subject contributed to Aviano's unprecedented 104 days of DUI-free driving.

Capt. Clydesdale received his B.S. in Biology from Grace College in 1996, and his D.O. from the Philadelphia College of Osteopathic Medicine in 2001. He entered active duty in 2002 and completed the Aerospace Medicine Primary Course that year. His awards and decorations include: Air Force Commendation Medal, Air Force Outstanding Unit Award with Valor, Armed Force Expeditionary Medal, Global War on Terrorism Service Medal, Korean Defense Service Medal, and the Small Arms Expert Marksmanship Ribbon.

Howard R. Unger Award Anthony Tvaryanas

The Howard R. Unger Award for best published scientific article was presented to Lt. Col. Anthony Tvaryanas for his paper "Human Factors in Remotely Piloted Aircraft Operations: HFACS Analysis of 221 Mishaps Over 10 Years" (ASEM 2006; 77:724-32). Col. Lex Brown accepted the award for Lt. Col. Tvaryanas, who was unable to attend the meeting.

Nominations Sought for 2008 AsMA Awards

The Awards Committee of the Aerospace Medical Association, which is responsible for selecting the annual winners of special awards, has set a **December 15** deadline for receiving nominations for awards to be presented at the 2008 Annual Scientific Meeting in Boston, MA. The names of prospective award winners should be submitted as far in advance of the deadline as possible. Lots of time is needed to review all of the names and select the winners.

Nominations can be made by any member of AsMA.

Rules:

1. The nominee must be a current member of the Association, with the sole exception that the Sidney D. Leverett, Jr., Environmental Science Awards is open to non-members.
2. Employees of a company sponsoring an award are eligible to receive the award. Self nomination is not allowed. Deceased members may be nominated.
3. Nominations for the Tuttle and Environmental Science Awards must cite a specific paper printed in Aviation, Space and Environmental Medicine. The award will be given to the first author only.
4. An individual can only receive one award in any one year.
5. The form is available on the AsMA website. You may either submit the nomination directly from the website or you may download the nomination form into your computer for e-mailing as a Word document attachment. Nomination forms sent via e-mail should be addressed to the Awards Committee Chair, Dwight Holland at Dwightholl@aol.com; and Ms Gisselle Vargas at AsMA Headquarters (gvargas@asma.org). If

e-mail is not available, you can send a hard copy of the form via normal mail to: Dwight Holland

4874 Glenbrooke Dr.
Roanoke, VA 24081
Phone: (540)761-1576
AsMA FAX: (703)739-9652.

Any auxiliary biographical material in electronic or hard copy attachments **must be limited to 3 typed pages** and will be retained in Association files.

6. Nominations received by Dec. 15 will be considered for awards to be presented at the next annual meeting. Unsuccessful nominations will be retained in the active file through three award cycles.

ANNUAL AWARDS (descriptions online)

1. Louis H. Bauer Founders Award
2. Mary T. Klinker Award
3. Harry G. Moseley Award
4. Eric Liljencrantz Award
5. Theodore C. Lyster Award
6. Boothby - Edwards Award
7. Julian E. Ward Memorial Award
8. Raymond F. Longacre Award
9. Arnold D. Tuttle Award
10. John A. Tamisiea Award
11. Sidney D. Leverett, Jr. Environmental Science Award
12. John Paul Stapp Award
13. Kent K. Gillingham Award
14. Won Chuel Kay Award
15. Marie Marvingt Award